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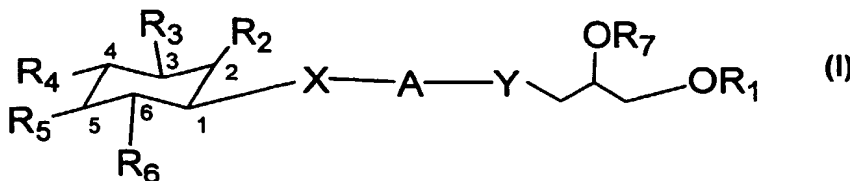
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(54) Title: AKT INHIBITORS, PHARMACEUTICAL COMPOSITIONS, AND USES THEREOF



inhibitors have the formula (I) wherein X and Y are independently selected from the group consisting of O, CF<sub>2</sub>, CH<sub>2</sub>, and CHF; wherein A is independently selected from the group consisting of P(O)OH, CH<sub>2</sub>OOH, and CH(COOH)<sub>2</sub>; R<sub>2</sub> is selected from the group consisting of H, OH, isosteres of OH, C<sub>1</sub>-C<sub>25</sub> alkyloxy, C<sub>6</sub>-C<sub>10</sub> aryloxy, C<sub>3</sub>-C<sub>8</sub> cycloalkyloxy, C<sub>3</sub>-C<sub>8</sub> cycloalkyl C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>22</sub> alkenyloxy, C<sub>3</sub>-C<sub>8</sub> cycloalkenyloxy, C<sub>7</sub>-C<sub>32</sub> aralkyloxy, C<sub>7</sub>-C<sub>32</sub> alkylaryloxy, C<sub>9</sub>-C<sub>32</sub> aralkenyloxy, and C<sub>9</sub>-C<sub>32</sub> alkenylaryloxy; R<sub>3</sub>-R<sub>6</sub> are independently selected from the group consisting of H, OH, isosteres of OH; and R<sub>1</sub> and R<sub>7</sub> are independently selected from the group consisting of C<sub>1</sub>-C<sub>25</sub> alkyl, C<sub>6</sub>-C<sub>10</sub> aryl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>2</sub>-C<sub>22</sub> alkenyl, C<sub>3</sub>-C<sub>8</sub> cycloalkenyl, C<sub>7</sub>-C<sub>32</sub> aralkyl, C<sub>7</sub>-C<sub>32</sub> alkylaryl, C<sub>9</sub>-C<sub>32</sub> aralkenyl, and C<sub>9</sub>-C<sub>32</sub> alkenylaryl; with the provisos that (i) when X is O, Y is O or CH<sub>2</sub>, and R<sub>3</sub> is H, at least one of R<sub>2</sub> and R<sub>4</sub>-R<sub>6</sub> is not OH; (ii) when A is CH<sub>2</sub>COOH or CH(COOH)<sub>2</sub>, X and Y cannot be simultaneously O; and (iii) all of R<sub>2</sub>-R<sub>6</sub> are not simultaneously H. The inhibitors can be in the form of a salt also.

(57) Abstract: Disclosed are in-  
hibitors of the serine/threonine kinase  
Akt, pharmaceutical compositions  
comprising such inhibitors, and a  
method of preventing or treating a  
disease or condition in an animal by  
the use of such inhibitors. The Akt